

AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A method for controlling at least one of speed and direction of movement of a screw discharger having a screw which is rotatable about a longitudinal axis and is moveable in a pile of bulk material, the method comprising the steps of:
 - (a) measuring a bending load on the screw of the screw discharger with at least one transducer;
 - (b) responsively generating a loading signal based on the bending load measured by the at least one transducer and directing the loading ~~signal~~ system thereby generated to a drive system operatively connected to the screw discharger; and
 - (c) controlling at least one of speed and direction of movement of the screw discharger in response to the drive system receiving the loading signal.
2. (previously presented) A method according to claim 1, wherein when the bending load on the screw as measured by the at least one transducer results in a loading signal having a value which falls below a preset value y_1 , the speed of movement of the screw discharger is increased.
3. (previously presented) A method according to claim 1, wherein when the bending load on the screw as measured by the at least one transducer results in a loading value which exceeds a preset value x_1 , at least one of the speed of movement of the screw is reduced and the direction of movement of the screw is changed.

4. (previously presented) A method according to claim 1, wherein when the bending load on the screw as measured by the at least one transducer results in a loading value which exceeds a preset value x_1 , the speed of movement of the screw is reduced and if the bending load at this lesser speed of movement exceeds a preset value x_2 , the value x_2 being equal to or greater than x_1 , the direction of movement of the screw is then changed for a preset period of time.
5. (previously presented) A method according to claim 1, wherein the method comprises controlling a frequency converter on the basis of the bending load on the screw, and wherein the frequency converter controls the drive system that controls at least one of the speed and direction of movement of the screw discharger.
6. (previously presented) An apparatus for controlling at least one of speed and direction of movement of a screw discharger having a frame, a discharger screw attached to the frame which is rotatable about a longitudinal axis and moveable in a pile of bulk material, and a drive system for driving the discharger screw, wherein the apparatus comprises:
 - at least one measurement transducer arranged to measure a bending load on the screw and to transmit measurement data based on the bending load thereby measured,
 - a control unit for processing the measurement data transmitted from the at least one transducer and for converting the measurement data into a control signal for the drive system that controls at least one of speed and direction of movement of the screw discharger, and
 - data transmission equipment for transmitting the measurement data from the at least one transducer to the control unit and for transmitting the control signal from the control unit to the drive system.

7. (previously presented) An apparatus according to claim 6, wherein the drive system comprises a frequency converter arranged for controlling at least one of the speed and direction of movement of the screw discharger generated by the drive system.
8. (previously presented) An apparatus according to claim 6, wherein the at least one measurement transducer for measuring the bending load on the screw is installed on the inside or outside surface of the screw pipe.
9. (previously presented) An apparatus according to claim 6, wherein the at least one measurement transducer for measuring the bending load on the screw is located in the frame of the screw discharger.
10. (currently amended) An apparatus according to claim 6, wherein the at least one measurement transducer ~~for~~ includes a strain-gauge transducer.